

Rose Chemical Site: Project Management Pays Off



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Planning, Cooperation, and Continuity

Ten years ago, the Martha C. Rose Chemicals PCB-processing facility was shut down and abandoned, leaving 14 million pounds of PCB-contaminated materials on the site in rural Holden, Missouri. The owner went bankrupt, leaving the cleanup responsibility in the laps of the parties who had shipped transformers, capacitors, and other equipment to the permitted facility for dismantling and decontaminating. EPA identified over 700 potentially responsible parties (PRPs) and issued an Administrative Order to clean up the facility. The result at the largest PCB site in the nation was chaos, confusion, conflict, and a hostile community.

Today, the site is clean, the community is happy, and the owner has served time behind bars. The keys to this success included PRPs who were actively involved in the project, regulators who were consistent and co-operative, and an outside party with experience in settlement and technical work. Careful planning, integration of project management and financial management, continuity of project personnel, and a climate of co-operation and trust with regulators and the community all helped the project to run smoothly.

Getting Started
The dynamics of a large group of PRPs being held jointly responsible for a costly cleanup was predictable - mistrust, individual self-interest, and fear of the unknown. All of these conspired to govern early

decision-making. Three points on which the PRPs agreed, however, were: 1) the desire to clean up the site voluntarily; 2) the value of participating actively in the cleanup; and 3) the need to acquire an experienced party to help. They selected *Clean Sites*, a non-profit organization dedicated to accelerating the cleanup of hazardous waste sites using a consensus-building approach. Clean Sites provided settlement and cost allocation assistance, project management, and financial management. In other words, they methodically addressed many of the issues which had originally created fear and conflict among those involved.

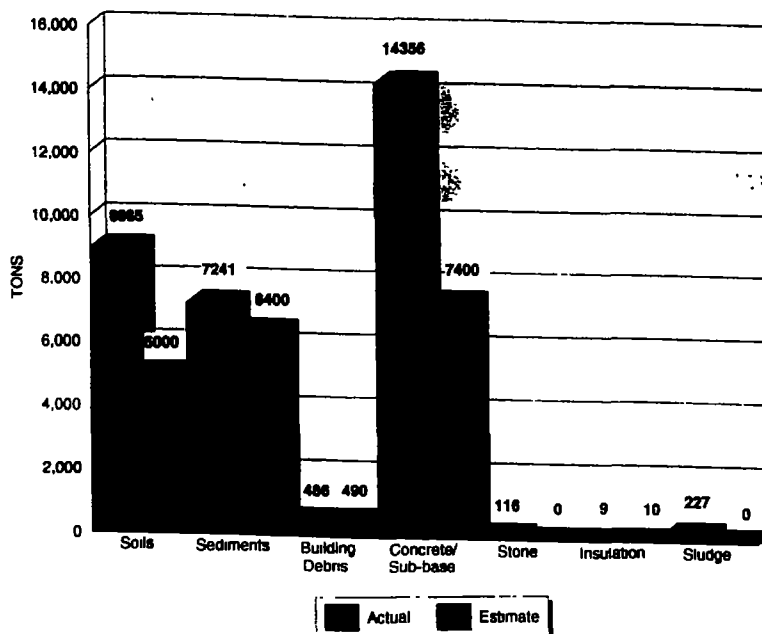
The first priority was to protect the community and stabilize potential physical threats at the site. Drums of metallic sodium, explosive when mixed with water, stood under a

leaking roof in the giant 100,000-square-foot warehouse. To make things worse, containers of rocket fuel stood in dangerous proximity. Thousands of miscellaneous drums and hundreds of pieces of electrical equipment also littered the facility. Clean Sites hired an environmental contractor to stabilize the hazardous materials threat, and a guard service to restrict access to the site.

Meanwhile, Clean Sites conducted a rigorous inventory of all materials at the site, creating the foundation for the cost allocation. At this point confidence in the information was essential, as it provided the basis for the PRPs moving forward with a plan of action and expenditures.

Moving Forward
The next step was the removal action - a cost-intensive phase of the cleanup. Competitive bid-

ROSE CHEMICALS REMEDIAL ACTION
ACTUAL WASTE DISPOSED VS. ESTIMATED



ding and a sound contracting strategy set the stage for a smooth operation. Good cash flow forecasting and Clean Sites' full-time presence on site during the removal activities kept the costs under control and the bank account balanced.

Deliberate outreach to the community reduced fears and misconceptions about health risks, potential restrictions on future uses of the property, and the overall impact on the town of Holden. EPA, Clean Sites and the PRPs sponsored a series of town meetings prior to the removal action to advise the community of the upcoming activities, to describe the types of activities that would occur on and around the site, and to answer questions. Clean Sites initiated frequent communications with the mayor of Holden, the neighbors, and other locals to reinforce the atmosphere of openness and candor. This gradually transformed a hostile community into informed advocates for the cleanup. Expecting the unexpected is fundamental to managing a successful cleanup, especially during the field activities. Unforeseen site conditions, equipment failures, inclement weather, and countless other mishaps can rapidly cause a project to go awry. Good contingency planning and frequent and regular communications with the PRPs and the regulators prevented the occurrence of unpleasant surprises. Weekly conference calls with both the PRP Technical Committee and the EPA during the removal action kept them informed and facilitated continuous planning to make necessary adjustments in the field.

Maintaining Momentum During the RI/FS, trust and cooperation were established by maintaining continuity of personnel. Most importantly, EPA maintained the same project manager throughout the entire cleanup. This

eliminated repetition of work resulting from differences in concerns and approaches of individuals. Such differences are common in the Superfund program which often suffers from a high turnover rate of EPA project managers. Additionally, the PRP group, Clean Sites and the RI/FS contractor maintained the same key personnel throughout the cleanup. This allowed strong positive relationships to develop among the key project personnel on all sides. Good work from the RI/FS contractor, *Burns & McDonnell*, was also important.

When EPA selected the remedy, it was done with a win-win approach in mind, in order to respond to both the regulators' and the PRPs' greatest concerns. An example: EPA needed to set an action level for treating PCB-contaminated concrete, which was protective of human health and the environment; the PRPs feared that such an action level for treating concrete at the Rose site would establish precedents to apply the same action level at other sites (where they had additional liabilities). A cooperative approach was used to develop a strategy for defining the action level in a way that would not be "misapplied" at other sites. As a result, the PRPs were able to move forward with the remedy without dispute, and progress continued.

Ensuring Fairness Good site characterization, careful cost estimating, and a "fair" approach pushed the settlement process to closure. Clean Sites recognized the importance of good site characterization for ensuring a high level of confidence in the risk assessment. This, in turn, gave the PRPs the confidence to proceed with the *de minimis* buyout. Also critical was understanding the purpose and importance of the total cleanup cost estimate. It had to be credible, de-

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fensible, and reliable, yet also reflect enough contingency to protect the settling parties from the unknown. And finally, the fair settlement approach provided each PRP the option to buy out at a premium or to stay in as a consent party paying a fair share. In the end, over 95 percent of the parties signed up. Once the buyout was settled, the budget was set and the importance of cost control became obvious. The remedy was simple - dismantle and remove the site structures (send off-site for disposal in TSCA landfill), excavate and remove contaminated soil and stream sediments (send off-site for incineration or landfilling depending on contamination levels), and install groundwater wells for long term monitoring. The design, also simple, was prepared in-house by Clean Sites to reduce transaction costs of retaining another contractor and bringing new people up to speed. The PRP Technical Committee worked closely with Clean Sites in this effort. The EPA project manager's continued participation also facilitated a swift and efficient design process.

The Home Stretch
The remedial action construction work was simple but cost-intensive, with most of the expense resulting from treatment and disposal costs (\$5.7 million of the total \$6.8 million). After all the planning and preparations, the remedial action phase of the project seemed relatively uneventful. As with most Superfund construction projects, site conditions were somewhat different than expected. At the Rose site, the volume of soil, sediment and concrete which had to be removed was greater than expected. Original volume estimates were 5,000 tons of soil, 6,400 tons of sediment, and 7,400 tons of concrete/subbase material. Actual volumes removed were

8,900 tons of soil, and 7,200 tons of sediment, and 14,000 tons of concrete/subbase material. The volume increases were due primarily to: 1) the discovery of a layer of contaminated subbase material beneath the warehouse floor slabs; 2) a more rigorous sampling method in the construction compared to the characterization which led to a larger area exceeding the action level; and 3) more sediment material in the stream beds.

Clean Sites' contracting strategy anticipated the possibility of higher volumes of material for treatment and/or disposal, and provided for the additional volume of material to be handled at the base unit rate, rather than at a higher rate often attached to change orders. The increased volumes necessitated procedural changes in sampling, handling, and transporting of materials, primarily due to space limitations on the site. Excellent technical support from the sampling contractor, *PSARA Technologies, Inc.*, was critical to developing a sound plan for revising the procedures. As a result of EPA's comfort level with the project team and the PRPs' active participation in the project, these changes were made in the field, minimizing any disruption to the schedule.

Project cost estimates included adequate contingency to cover these "unexpected" factors. Cash flow forecasts were adjusted frequently to reflect changing conditions in the field. ♦

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Show Calendar

Superfund Nov. 6-8, DC
(301) 968-7800

ETE Nov. 8-10, GA
(404) 279-4388

The Chem Show Dec. 4-7, NY
(203) 221-9232

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February 25-29, 1996
Tucson, AZ
(520) 624-8573

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March 3-8, 1996
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GlobalCon '96
April 3-4, 1996
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Outdoor Action Exposition
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June 19-20, 1996
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Nashville, TN
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Environmental Sampling Conference
June 24-28, 1996
Pittsburgh, PA
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